

COMPUTER DESKTOP-KEYBOARD COVER WITH BUILT-IN MONITOR SCREEN AND WRIST SUPPORT ACCESSORY

GENERAL DESCRIPTION

This application is a continuation in part (CIP) of the previous application covered by the Notice of Allowability dated Feb. 27, 1997 in respect of Ser. No. 8/611,201 filed Mar. 5, 1996, now U.S. Pat. No. 5,781,406. The reasons for this CIP application at this time is due to the omission of formal claims for some of the embodiments of the original application, as well as the present inclusion of new matter for additional embodiments now added that are logically pertinent to the substantive invention.

The "Generic Desktop Computer Keyboard Cover & Monitor" describes the Invention of a new addition to computer peripheral equipment for standard Desktop Computer workstations of PCs or Macintosh computers. The conventional 3-piece configuration comprises Keyboard, 1 Systems Unit (CPU), 2 and Cathode-Ray-Tube (CRT) Monitor 3. In some cases there is a hood-stand and tray for the keyboard as well. 3A (FIG. 1). This invention transforms the usual layout into a two-piece configuration namely, Keyboard with built-in Screen Monitor and CPU 7 [or Network Interface 2A] (FIG. 2). For the first time, the large, bulky CRT-Monitor 3 will no longer be essential for the standard desktop configuration; for the present invention provides a device for upgrading existing keyboards and for computer technologists and hardware manufacturers to produce a Desktop Keyboard with Cover-&-Video-Screen-Monitor combined as a single peripheral 6 7 (FIGS. 2, 7). This will replace the CRT-Monitor 3 and convert keyboards from being input-devices only to become output-devices also, for text, multi-media and graphics displays. This invention also provides a Keyboard Cover Accessory 5 (FIG. 3) designed for three main purposes: one, to complement the Cover and Monitor attachment as a means of temporarily covering the keyboard when the Screen Monitor is in live usage by manually placing the accessory over the keys two, when the accessory is placed in front of the keyboard it provides for the first-time ever a wide five-inch ergonomic wrist-support support accessory to prevent or ameliorate the disease of Carpal Tunnel Syndrome (CTS); [5] and three, it serves as a computer mouse-pad on an anti-static cotton-fabric covering. 5. This new concept removes a major drawback for desktop keyboards, namely, they have no cover; but by means of the Cover/Monitor attachment device 4 (FIGS. 3, 4, 11, 14) and the Accessory Cover 5 (FIGS. 3, 4, 11, 14) [they no longer remain unprotected from dust and debris. This new attachment device and the associated accessory have been designed and developed for a "do-it-yourself add-on kit" by owners/users for existing keyboards. This present invention involves innovative designs for attaching the Cover/Monitor device to the Keyboard by means of two-hinging systems.

According to the First Aspect of this Invention, the Desktop Keyboard Cover and Screen-Monitor Device (hereinafter referred to as Model 1A) 4A has been developed to be hinged to desktop keyboards using the first design comprised of a pair of metal housings, externally bolted to the keyboard, with double arms articulating in opposite directions, being the main embodiment of the first application. The designated points of attachment to the sides of the keyboard are shown in FIGS. 5 and 8. 10, 4A

And according to the second hinging design of this First Aspect of the invention the Cover/Monitor attachment

device is equipped with a pair of single pivoting steel-metal arms 9 bolted with wing-bolts and friction washers to the two sides of the keyboard, being an embodiment of the new matter added in this CIP application (hereinafter referred to as Model 1B). 4B (FIG. 6). These arms pivotably rotate in the same direction, that enables the Cover/Monitor to be opened and the screen placed in various positions at the correct angle of recline for viewing. These two steel hinge-arm members are riveted, with friction-washers, to the base ends of the Cover/Monitor attachment device, at designated pivoting point 'x' [11] and are bolted at the other ends to the sides of the keyboard housing with wing-screws and friction-washers, at the designated point 'y' [11] (FIG. 6). (There is no mechanical connection between the base of the Cover/Monitor and rear edge of the keyboard base as embodied in claims hereunder). By removing the wing-bolts 21 the hinge-arms are pivoted backwards to a fixed notch on the cover 9A to provide base support for viewing when separated from the Keyboard 11 (FIG. 6A). The lower half of the rectangular Cover/Monitor has vertical walls on the perimeter providing for a recessed cavity 15 (FIGS. 3, 8, 12) about 5/8" deep, allowing the Cover device attached to the Desktop Keyboard to be closed without depressing any keys, in case this is necessary, while the power is still turned on. The face-glass of the wide-screen 14 (FIGS. 3, 8) with a length dimension of 18 inches, and a width dimension of 7 inches, provides the 'ceiling' 12 of the recessed cavity for the keyboard cover. (FIGS. 3, 8). The top section of the Cover housing 22 (FIGS. 10, 10A, 10B) provides a space area to accommodate all the hardware, electronic circuitry, and Printed Circuit Board (PCB) components for the LCD or other 'Flat-panel' display technology, as well as two multi-media speakers, and a 3.5" floppy disk drive and port. This "Generic Desktop Keyboard Cover & Monitor Attachment device" 4 (FIG. 3) is so named because it may be fitted to any standard desktop computer keyboard in use today. For although it has a fixed length dimension of 18 inches, it is possible to be fitted to any keyboard with lengths varying from 17 inches up to over 20 inches. 20 (FIG. 8). The methodology herein disclosed is a novel and simple means to accommodate all desktop keyboard sizes. In order to ensure that the hinge-mechanism may be attached in parallel alignment with both the keyboard base housing component and the Cover/Monitor component, spacer friction-washers as previously mentioned 21 (FIGS. 8, 14) are used at the point of contact where the hinge arm-members are bolted to the components. [(FIG. 8)] In cases where the desktop keyboard length dimension is greater than the length dimension of the Cover/Monitor device, then the spacer-washers are placed between the hinge-arm and the Cover/Monitor 10, [11] (FIG. 8); and in cases where the opposite is the case, with the keyboard housing being shorter than the Cover/Monitor, then the spacer-washers are placed between the Keyboard housing and the hinge arm-member to maintain a firm and stable parallel relationship between the components. This ingenious methodology ensures that one standard-sized Keyboard Cover and Monitor can be used in every situation. (FIG. 8). A Key-lock is installed in the Cover unit 27 whereby it may be locked by means of a cabinet-type lock located to the front of the Cover Device. Unauthorized access to the Computer is thereby controlled. Parental or custodial control of the use of computers will be facilitated.(FIG. [8] 10).

According to the Second Aspect of this present Invention, the companion Accessory Cover and Wrist Support Device, (herein referred to as Model 2) 5 embodies some of the art of the First Aspect; but does not have a monitor. It is described as follows: